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Executive Summary  
M/029/0008

## EXECUTIVE SUMMARY

Date Summary Prepared: February 28, 2011

<b>Mine Name:</b> Morgan Facility	<b>I.D. Number:</b> M/029/0008
<b>Operator:</b> Granite Construction Company	<b>Date Original Notice Received:</b> April 19, 2010
<b>Address:</b> P. O. Box 30429 Salt Lake City, UT 84130-0429	<b>County:</b> Morgan <b>New/Existing:</b> SMO increased to a LMO
<b>Contact Person:</b> Chris Faulhaber	<b>Mineral Ownership:</b> Fee
<b>Telephone:</b> 801-526-6047	<b>Surface Ownership:</b> Fee
	<b>Lease No.(s):</b> N/A

**Life of Mine:** About 47 years

**Legal Description:** NW1/4 of Section 31, Township 4 North, Range 3 East, and NE1/4 of Section 36, Township 4 North, Range 2 East of the SLM

**Mineral(s) to be Mined:** Excavation will first be into limestone. These materials will be used to produce crushed or screened aggregate for construction materials.

**Acres to be Disturbed:** About 38 acres would be disturbed during the initial operation. An additional 26 acres are included in the lease and can be mined in the future.

**Present Land Use:** Small mining operations, rangeland and wildlife habitat.

**Postmining Land Use:** Rangeland and wildlife habitat.

**Variances from Reclamation Standards (Rule R647) Granted:** None.

### Soils and Geology

**Soil Description:** Textures of the soil samples range from cobbly silty loam to sandy clay loam. There are no restrictions on salvaging soil because of concerns about the chemistry. Fertility is low and will likely require amendments to achieve successful revegetation results. The reclamation plan calls for the use of composted manure or biosolids as a soil amendment. Soils are fairly high in limestone rock fragments, gravels and cobbles, and the depth to bedrock for the Agassiz-Rock Outcrop Complex is typically less than eight inches. pH values range from about 5 to about 8.2.

**Special Handling Problems:** The Agassiz-Rock Outcrop Complex is the predominant soil, and it averages seven inches thick before reaching bedrock. Nevertheless, the operator expects to be able to salvage an average of about six inches of soil over the entire area.

**Geology Description:** The mine is located in the Basin and Range Physiographic Province. The mine has a thin veneer of alluvial material and is underlain predominately by an Upper Mississippian Lodgepole Limestone.



The stratigraphy in the area strikes to the northeast and dips to the east at 22 to 36 degrees to the southeast. Most of the alluvial deposits have been removed by previous mining.

### **Hydrology**

**Ground Water Description:** It is not expected that groundwater will be encountered at the maximum extent of mining. The floor of the mine is currently planned to be at least 15 -25 feet above groundwater, based on well data from the Utah Division of Water Rights.

**Surface Water Description:** Any storm water runoff coming from affected lands will be collected in the storm water retention basin or within the quarry confines, which, at a minimum, will be sized for the 100-year, 6-hour event.

**Water Monitoring Plan:** It is not anticipated that water monitoring will be needed, and there is no water monitoring plan.

### **Ecology**

**Vegetation Type(s); Dominant Species:** The dominant plant species are stork's bill and bulbous bluegrass, neither of which is native. These and other weedy species predominate the vegetation cover. There are some small areas of Utah juniper and scattered rabbitbrush plants.

**Percent Surrounding Vegetative Cover:** 52 percent of the permit area is rock. 42 percent of the permit area is vegetation and the remaining 6 percent is bare ground.

**Wildlife Concerns:** No threatened or endangered species are known to occur in the area. The Yellow-billed cuckoo is a threatened candidate species, although it is not ideal habitat for this species. The Canada Lynx is a threatened species, but the permit area does not provide the proper habitat for this species.

### **Mining and Reclamation Plan Summary:**

#### **During Operations:**

Following topsoil salvage, rock will be drilled, blasted and removed in lifts about 50 feet deep. The material is removed to a processing area where it is crushed and screened. Blasting will be done by a contractor in accordance with MSHA requirements. Crushers and plants have a permanent approval order from the Division of Air Quality. All roads and materials will be sprayed to control fugitive dust. Conveyors are equipped with spray bars that spray water at drop points to control dust. Appropriate gates and warning signs will be located at public access points and other locations. Deleterious or potentially deleterious materials will be kept in designated storage areas. Surface facilities include a jaw crusher and secondary and tertiary crushing units, sizing screens, a wash plant, scales and scale house, fuel and water storage tanks, and mine roads.

#### **After Operations:**

When mining is complete, the site will be returned to a grazing and wildlife habitat postmining land use. All facilities will be removed and any remnants of material stockpiles on the quarry floor will be graded across the floor. The quarry floor will be graded to create a slightly rolling surface. It will then be ripped 18 inches deep followed by distribution of soil and seeding.



Highwalls and sidewalls will have overall slopes of 1H:1V with 40-foot highwalls and 23-foot benches. The benches will be covered with soil where possible then seeded. Steep slopes between the benches will not be covered with soil or seeded.

The seed mix includes a mixture of native and introduced species that should help reduce establishment of cheatgrass.

The stormwater retention basin will be backfilled and graded, but this will be the last area reclaimed to minimize the chance for off-site sedimentation. Drainages flowing over the highwalls into the quarry will be lined with rock to prevent erosion.

The access road is a county road, and it will be reclaimed to its current condition as a county road.

### **Surety**

**Amount:** \$450,000

**Form:** Yet to be determined

**Renewable Term:** Five years

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